

**Final Draft: Guidance for TMDL Implementation Plan Development for Urban/Rural Residential Land  
Uses within the Coastal Nonpoint Management Area (June 2012)**

**EPA/NOAA Comments July 2012**

**General Comments:**

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- Since the targeted audience for this document is DMAs and they do not need to know the specifics of this MM, you could remove Section 1.5.2.3 CZARA Section 6217 (pages 14-16) out of this document and make a separate document that includes Section 1.5.2.3 CZARA Section 6217 and the appendices or appropriate parts of the appendices pertaining to this management measure (or reference them). This document could be provided to EPA/NOAA as a way to document Oregon's addressing this MM. Alternatively, you could include Section 1.5.2.3 CZARA Section 6217 (pages 14-16) and all appendices<sup>1</sup> pertaining to this MM as one appendix. Both of these alternatives may make this document less confusing for the DMAs. The document needs to make it clear that Oregon DEQ has authority to require implementation of the new development MMs. If implementation of stormwater control measures to address the 6217 new development MM is optional and Oregon DEQ has no way of requiring implementation of the new development MMs, then we are not sure whether this "guidance document" will satisfy the new development MM and will need to discuss this further.

<sup>1</sup>The appendices that could pertain to this measure include: Appendix A; Coastal Nonpoint Management Area Boundary DEQ Basin Coordinators, Appendix C: TMDLs and 303(d) Listed Pollutants by Waterbody for Urban/Rural Residential DMAs within the Coastal Nonpoint Management Area, Appendix G Recommended Programmatic BMPs by TMDL Listed Pollutant and Source (only for BMPs that will result in reductions of in TSS or reductions in post development peak runoff rates and average volume to levels similar to pre-development levels), Appendix H Recommended Structural BMPs by TMDL Listed Pollutant, Source, Estimated Load Reduction and Costs (only for BMPs that will result in reductions of in TSS or reductions in post development peak runoff rates and average volume to levels similar to pre-development levels), Appendix N & O Examples of Stormwater Management Ordinance, Model Post Construction Stormwater Runoff Control Ordinance and the appropriate BMPs for this measure under Appendix P: Implementation and Effectiveness Monitoring by Pollutant.

Please make sure you are describing the CZARA Section 6217 correctly throughout the document. The program is jointly administered by NOAA and EPA (not just NOAA) as is authorized under CZARA (not the CZMA).

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- Pg. 10 Explain how implementation-ready TMDL differs with respect to what is expected from the DMAs during and TMDL development. Do the process and due dates described under 1.5.1 apply to both regular TMDLs and implementation-ready TMDLs?
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- Pg. 12 (1.5.2.2, 4<sup>th</sup> paragraph)—Only BMPs for post-construction stormwater management for new and redevelopment would be appropriate BMPs to address the 6217 new development

MM. The other recommended BMPs, including sediment and erosion control, may address other CZARA MMs but are not appropriate to show as meeting new development MM requirements.

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The paragraph goes on to explain that if DMAs don’t use regulatory controls, they must provide reasonable explanation that similar or greater protection is expected through voluntary approaches and they must specify how they will measure effectiveness and put in place provisions if the voluntary measures do not work. This is excellent! However, the stormwater discussion and requirements(?) are dribbled out throughout the document. It would be much more useful to DMAs if all the requirements related to stormwater are captured clearly in one

section and not presented in dribs and drabs that DMAs have to hunt for throughout the document (which has a much higher likelihood of being overlooked).

Page 20: Under Table 4, under the first requirement under CZARA add the following language to the end: “or reduce the postdevelopment loadings of TSS so that the average annual TSS loadings are no greater than predevelopment loadings.” Also should be clear that these requirements only address the new development MM (post construction).

- Pg. 25 2.1.4. & Pg. 115 3. Reasonable Assurance: Reasonable assurance (RA) means that when a TMDL is developed for waters impaired by both point and nonpoint sources (NPS), and the WLA is based on an assumption that NPS load reductions will occur, the TMDL should provide reasonable assurances that NPS control measures will achieve expected load reductions. EPA recommends the following elements in demonstrating reasonable assurance:
  1. **Quantification of LA and WLA:** Does the TMDL clearly describe the analytical process used for calculating both the LA and the WLA(s)? In particular, for the LA, does the TMDL explain the process used to estimate the current NPS load by sector, and the assumptions that were applied to estimate the expected NPS reductions by sector (e.g., type of BMPs, how many will be applied, their pollutant reduction efficiencies, etc.). For the WLAs, does the TMDL assign specific allocations to individual or categories of sources and explain the extent to which those WLAs are expected to be implemented in permits?
  2. **Linkage of WLA to LA:** A fundamental statutory and regulatory principle of TMDLs is that the aggregate sum of the WLAs, when added to the aggregate sum of the LAs, must not exceed the assimilative capacity of the water body. Are the assumptions regarding how the WLA was calculated clearly explained? For example, is there a discussion of whether the WLA was based on the assumption that the LA would be achieved over time based on a schedule of NPS implementation, achievement of milestone measures, etc? Does the TMDL include an “assumption” that a permit based on a WLA might be reopened to include a more stringent WQBEL if attainment of nonpoint source load allocations was not achieved consistent with the TMDL’s reasonable assurance assumptions?
  3. **Discussions of schedule and milestones to achieve LA:** It is difficult to ensure, a priori, that implementing nonpoint source controls will achieve expected load reductions. Nonpoint source control measures may fail to achieve projected pollution load reductions due to inadequate selection of BMPs (practices not applicable to a particular watershed), inadequate design or implementation, or lack of full participation by all contributing sources of nonpoint pollution. Does the TMDL provide an overall schedule for implementation of nonpoint source controls along with an adaptive management procedure for reviewing key milestone progress and revising BMPs, if necessary, to meet the TMDL target loads?
  4. **Discussion of monitoring and tracking approach to evaluate progress:** The key objective for documenting load reduction goals and review procedures is to establish a rational procedure for site-specific evaluation of waterbodies with significant nonpoint source pollution loads. Does the TMDL indicate that the State is prepared to develop and implement a monitoring and reduction tracking system in order to facilitate adjustments to the initial set of BMP assumptions and to track the progress of NPS control implementation?
  5. **Discussion of follow-up actions:** Does the TMDL describe potential follow-up actions under state, local, or federal law, e.g., possibility of more stringent permit limits or more effective NPS controls, and when they would occur, if there is insufficient progress in the expected NPS control implementation?
- Pg. 27 Under 2.1.8 Include a definition of adaptive management. Here is a definition from Washington Department of Ecology “Natural systems are complex and dynamic. The way

a system will respond to human management activities is often unknown and can only be described as probabilities or possibilities. Adaptive management involves testing, monitoring, evaluating applied strategies, and incorporating new knowledge into management approaches that are based on scientific findings. In the case of TMDLs, adaptive management is used to assess whether the actions identified as necessary to solve the identified pollution problems are the correct ones and whether they are working. Adaptive management allows us to fine-tune our actions to make them more effective, and to try new strategies if we have evidence that a new approach could help us to achieve compliance. Partners will work together to monitor progress towards these goals, evaluate successes, obstacles, and changing needs, and make adjustments to the implementation strategy as needed.

- Pg. 29 under 2.2.1 and 2.2.4.2 & Pg. 123 Are DMAs “expected” or “required” to implement and review/revise the implementation plan every 5 years? If it is “required”, as suggested in the 3<sup>rd</sup> paragraph on page 30 and on page 123 under 5 –Year Implementation Plan Review, then make it clear that the DMAs are “required” to.....
- Pg. 30 under “Step 5” Define Class II violation.
- Pg. 33: Be sure to include monitoring to determine progress toward meeting water quality standards.
- Pgss 35-37 & pgs.59-61 information provided on these pages is identical. Figure 4 (page 13) & Figure 15 (page 65) are the same and similar information is provided on pages 12 and 63-64.
- Pg. 76 (3.11.2.3, Ordinances Recommended to Meet CZARA New Development MMs)-- ONLY the Post-Construction Stormwater ordinance would be appropriate for meeting the CZARA new development requirements. The other ordinances satisfy other CZARA MM requirements but not those for new development and should be removed from the list.
- Pg. 81 Table 12: Column titled “CZARA Measure and TMDL Listed Pollutant” is misleading as what is under this column is not CZARA measures and in some cases such as “hydrology” not a TMDL listed pollutant. Perhaps a better title would be “Impairment”
- Pg. 121 under Performance Monitoring, where is monitoring to determine progress towards meeting water quality standards shown?
- Pg. 151 (Appendix F)—Many of the waterbodies are listed for temperature but this list of BMPs does not include BMPs to address temperature. It would be very helpful if you also include BMPs that would be appropriate for addressing temperature issues.
- Pg. 160 (and others as appropriate, Appendix G)—Adopting a stormwater ordinance is a good performance BMP but the ordinance should not just be to maintain runoff volumes approximately the same as pre-development rates but also to control TSS (80% reduction per 6217 (g) measure requirements).

- Appendix G & H: “Hydrology Volume Reduction” is not a TMDL listed pollutant. Perhaps it would be better to label this column “Impairment” as it includes both pollutants (temperature) and pollution (hydrology)
- Pg. 164 (Appendix G)—We thought adopting stormwater controls consistent with (g) guidance were needed for all DMAs in the 6217 management area? Why, then, is adopting a stormwater control ordinance that controls water quality and sediment only included as a recommended BMP for the pollutant sediment (shouldn’t it be a recommended BMP for ALL pollutants to be consistent with the statements made earlier in the document?). Developing a stormwater management plan (as described in this appendix is not sufficient). If the plan includes specific actions to control and treat soil laden runoff from new and redevelopment consistent with the (g) guidance, that would be better.
- Pg. 233 (Appendix O)—Not sure why the lead-in paragraph has to limit the model ordinance just to communities that need to meet NPDES requirements. Don’t all DMAs needed to include stormwater controls in their Implementation Plans so wouldn’t it be a useful guidance for all DMAs within the 6217 management area, regardless of whether or not they have to comply with NPDES too?

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- Pg. 25 2.1.4. & Pg. 115 3. Reasonable Assurance: Reasonable assurance (RA) means that when a TMDL is developed for waters impaired by both point and nonpoint sources (NPS), and the WLA is based on an assumption that NPS load reductions will occur, the TMDL should provide reasonable assurances that NPS control measures will achieve expected load reductions. EPA recommends the following elements in demonstrating reasonable assurance:

1. **Quantification of LA and WLA:** Does the TMDL clearly describe the analytical process used for calculating both the LA and the WLA(s)? In particular, for the LA, does the TMDL explain the process used to estimate the current NPS load by sector, and the assumptions that were applied to estimate the expected NPS reductions by sector (e.g., type of BMPs, how many will be applied, their pollutant reduction efficiencies, etc.). For the WLAs, does the TMDL assign specific allocations to individual or categories of sources and explain the extent to which those WLAs are expected to be implemented in permits?

2. **Linkage of WLA to LA:** A fundamental statutory and regulatory principle of TMDLs is that the aggregate sum of the WLAs, when added to the aggregate sum of the LAs, must not exceed the assimilative capacity of the water body. Are the assumptions regarding how the WLA was calculated clearly explained? For example, is there a discussion of whether the WLA was based on the assumption that the LA would be achieved over time based on a schedule of NPS implementation, achievement of milestone measures, etc? Does the TMDL include an "assumption" that a permit based on a WLA might be reopened to include a more stringent WQBEL if attainment of nonpoint source load allocations was not achieved consistent with the TMDL's reasonable assurance assumptions?

3. **Discussions of schedule and milestones to achieve LA:** It is difficult to ensure, a priori, that implementing nonpoint source controls will achieve expected load reductions. Nonpoint source control measures may fail to achieve projected pollution load reductions due to inadequate selection of BMPs (practices not applicable to a particular watershed), inadequate design or implementation, or lack of full participation by all contributing sources of nonpoint pollution. Does the TMDL provide an overall schedule for implementation of nonpoint source controls along with an adaptive management procedure for reviewing key milestone progress and revising BMPs, if necessary, to meet the TMDL target loads?

4. **Discussion of monitoring and tracking approach to evaluate progress:** The key objective for documenting load reduction goals and review procedures is to establish a rational procedure for site-specific evaluation of waterbodies with significant nonpoint source pollution loads. Does the TMDL indicate that the State is prepared to develop and implement a monitoring and reduction tracking system in order to facilitate adjustments to the initial set of BMP assumptions and to track the progress of NPS control implementation?

5. **Discussion of follow-up actions:** Does the TMDL describe potential follow-up actions under state, local, or federal law, e.g., possibility of more stringent permit limits or more effective NPS controls, and when they would occur, if there is insufficient progress in the expected NPS control implementation?

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- Pg. 27 Under 2.1.8 Include a definition of adaptive management. Here is a definition from Washington Department of Ecology “Natural systems are complex and dynamic. The way a system will respond to human management activities is often unknown and can only be described as probabilities or possibilities. Adaptive management involves testing, monitoring, evaluating applied strategies, and incorporating new knowledge into management approaches that are based on scientific findings. In the case of TMDLs, adaptive management is used to assess whether the actions identified as necessary to solve the identified pollution problems are the correct ones and whether they are working. Adaptive management allows us to fine-tune our actions to make them more effective, and to try new strategies if we have evidence that a new approach could help us to achieve compliance. Partners will work together to monitor progress towards these goals, evaluate successes, obstacles, and changing needs, and make adjustments to the implementation strategy as needed.

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- Pg. 29 under 2.2.1 and 2.2.4.2 & Pg. 123 Are DMAs “expected” or “required” to implement and review/revise the implementation plan every 5 years? If it is “required”, as suggested in the 3<sup>rd</sup> paragraph on page 30 and on page 123 under 5 –Year Implementation Plan Review, then make it clear that the DMAs are “required” to....

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- Pg. 30 under “Step 5” Define Class II violation.

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- Pg. 33: Be sure to include monitoring to determine progress toward meeting water quality standards.

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- Pgss 35-37 & pgs.59-61 information provided on these pages is identical. Figure 4 (page 13) & Figure 15 (page 65) are the same and similar information is provided on pages 12 and 63-64.

- Pg. 76 (3.11.2.3, Ordinances Recommended to Meet CZARA New Development MMs)-- As noted above, although I’ll defer to EPA, it’s my understanding that ONLY the Post-Construction Stormwater ordinance would be appropriate for meeting the CZARA new development requirements. The other ordinances satisfy other CZARA MM requirements but not those for new development and should be removed from the list.

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- Pg. 81 Table 12: Column titled “CZARA Measure and TMDL Listed Pollutant” is misleading as what is under this column is not CZARA measures and in some cases such as “hydrology” not a TMDL listed pollutant. Perhaps a better title would be “Impairment”

- Pg. 121 under Performance Monitoring, where is monitoring to determine progress towards meeting water quality standards shown?

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- Pg. 151 (Appendix F)—Many of ~~they are~~ waterbodies are listed for temperature but this list of BMPs does not include BMPs to address temperature. It would be very helpful if you also include BMPs that would be appropriate for addressing temperature issues.

- Pg. 160 (and others as appropriate, Appendix G)—Adopting a stormwater ordinance is a good performance BMP but the ordinance should not just be to maintain runoff volumes

~~approximately~~; the same as pre-development rates but also to control TSS (80% reduction per 6217 (g) measure requirements).

- Appendix G & H: "Hydrology Volume Reduction" is not a TMDL listed pollutant. Perhaps it would be better to label this column "Impairment" as it includes both pollutants (temperature) and pollution (hydrology)
- Pg. 164 (Appendix G)—~~We~~<sup>+</sup> thought adopting stormwater controls consistent with (g) guidance were needed for all DMAs in the 6217 management area? Why, then, is adopting a stormwater control ordinance that controls water quality and sediment only included as a recommended BMP for the pollutant s~~Sediment Pollutant~~ (shouldn't it be a recommended BMP for ALL pollutants to be consistent with the statements made earlier in the document?). Developing a stormwater management~~gt~~ plan (as described in this appendix is not sufficient). If the plan includes ~~se~~ specific actions to control and treat soil laden runoff from new and redevelopment consistent with the (g) guidance, that would be better.
- Pg. 233 (Appendix O)—Not sure why the lead-in paragraph has to limit the model ordinance just to communities that need to meet NPDES requirements. ~~Don't+thought~~ all DMAs needed to include stormwater controls in their Implementation Plans so wouldn't it be a useful guidance for all DMAs within the 6217 management area, regardless of whether or not they have to comply with NPDES too?